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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
08/974.621	11/19/97	NISHI	T 07977/202001

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MM42/0901

EXAMINER

NGUYEN, D

ART UNIT	PAPER NUMBER
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2871

DATE MAILED: 09/01/99

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.
08/974,621

Applicant(s)
Nishi

Examiner
Dung Nguyen

Group Art Unit
2871



☐ Responsive to communication(s) filed on _____.

☐ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claims

☒ Claim(s) 1-10 is/are pending in the application.

Of the above, claim(s) _____ is/are withdrawn from consideration.

☐ Claim(s) _____ is/are allowed.

☒ Claim(s) 1-10 is/are rejected.

☐ Claim(s) _____ is/are objected to.

☐ Claims _____ are subject to restriction or election requirement.

Application Papers

☒ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

☒ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☒ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been

☒ received.

☐ received in Application No. (Series Code/Serial Number) _____.

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____.

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

☒ Notice of References Cited, PTO-892

☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____

☐ Interview Summary, PTO-413

☒ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

Art Unit: 2871

DETAILED ACTION

Claim Objections

1. Claim 10 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. For the purpose of examination, it is assumed that claim 10 will be depended on claim 9.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371© of this title before the invention thereof by the applicant for patent.

3. Claims 1, 4 and 5 are rejected under 35 U.S.C. 102(e) as being anticipated by Shimada et al., US Patent No. 5,805,252.

The above claims are anticipated by Shimada et al., Fig 14 which disclose a reflection type active matrix liquid crystal display (LCD) device in which:

Art Unit: 2871

- a plural of pixel electrodes (38) disposed over an active matrix substrate (30a) in the form of a matrix (according to active matrix LCD), each pixel electrode connects to a thin film transistor (TFT)(40);
- an interlayer insulating film (42) interposed between the active matrix substrate and the plurality of pixel electrodes;
- an oxidized of aluminum light reflective film (38a) formed on an upper surface of pixel electrodes;
- a first orientation film (44) formed on the light reflective film;
- a color filter (46), a counter electrode (47) and a second orientation film formed on an opposing substrate (30b);
- a liquid crystal material (e.g., guest-host type, figures 17 and 18) injected between the first and second orientation film.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 2, 3, 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shimada et al., US Patent No. 5,805,252.

Art Unit: 2871

Regarding claims 2 and 3, Shimada et al. disclose the claimed invention as described above except for the light reflective film which is a multilayer having a same or different configuration. One of ordinary skill in the art would have realized the desire to form one or multilayer of reflecting film having a same or different configuration on the surface of the pixel electrode. Therefore, it would have obvious to one of ordinary skill in the art at the time the invention was made to include a multilayer of reflecting film on the surface of the pixel electrode of Shimada et al. since such process is one of many ways well known in the art to form a reflecting film. The use of one and/or multilayer having a same or different configuration merely depend(s) on the particular desire of a manufacturer of such device and the feasibility of such process or processes evaluated by the manufacturer.

Regarding claim 6, Shimada et al. disclose the claimed invention as described above except for the light reflecting film comprising scandium and aluminum. It would have been obvious to one having ordinary skill in the art at the time the invention was made to use a reflecting film comprising aluminum and scandium, since it has been held to be within the general skill of a worker in the art to select a known material in order to obtain a good light reflection.

6. Claims 7-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shimada et al., US Patent No. 5,805,252 , in view of Kim et al., US Patent No. 5,311,338.

Regarding claims 7-10, Shimada et al. disclose the claimed invention as described above except for a light reflective film formed by anodic oxidation of the pixel electrode. Kim et al

Art Unit: 2871

clearly disclose a reflective film which can be performed by an anode oxidization method (claim 21). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to form a reflecting film by using the method of anode oxidation in order to create an uniform surface and fast oxidation of the anode (col. 5, line 16). Furthermore, a configuration of the reflecting film inherently changes by varying the conditions of the anodization treatment.

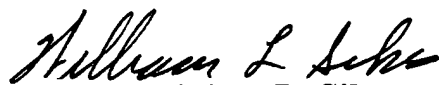
Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Dung Nguyen whose telephone number is (703) 305-0423. The fax phone number for this Group is (703) 308-7726.

Any information of a general nature or relating to the status of this application should be directed to the group receptionist whose telephone number is (703) 308-0956.

DN
August 24, 1999


William L. Sikes
Supervisory Patent Examiner
Group 2871